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Original Lectures.

ABDOMINAL SURGERY.

EXTRACTS FROM PROF. LUDLAM'S LECTURES IN THE WOMEN'S CLINIC OF THE HAHNEMANN HOSPITAL, OF CHICAGO, DURING THE POST-GRADUATE COURSE FOR 1887.

Four laparotomies were made in this clinic in the presence of the class during the month of April, 1887. Of these, one was an exploratory incision, two were ovariotomies, and the fourth a supra-vaginal hysterectomy. In each case, and before the operations were begun, suitable remarks were made concerning their scope and their applicability to the forms of disease under consideration.

At the clinic on Wednesday, April 20, Prof. Ludlam said that the case of abdominal tumor which had been sent to him by Dr. A. H. Van Voorhis, of Dakota, which he had shown them on the previous Saturday, and where the growth was in all probability malignant, was one in which he had promised the doctor and his patient to give her all the relief that was possible. Acting upon the idea expressed by Lawson Tait, that the section of the abdomen belonged to diagnosis, and is, indeed, its last resource, he had determined to make it in this case, but before doing so he would say something of

THE EXPLORATORY INCISION.

Case 20001.—Mrs. —— æt. forty-eight, the mother of five children, was married at twenty-three, was always well until after the birth of her last, a boy, fourteen years ago.

At that time she came near dying from inflammation of the right ovary, but she recovered in eight weeks. Then she had one severe shock at the death of her mother, and another by her husband's failure in business. Since the last mishap she has been obliged to work very hard, and has suffered much from ovaralgia. Two years ago, while sitting at the table writing, and without previous warning, she suddenly felt what seemed to her like a fœtus rising from the pelvic cavity to the right hypochondriac region. From this time she supposed herself to be pregnant; yet the menstruation continued regular and normal.

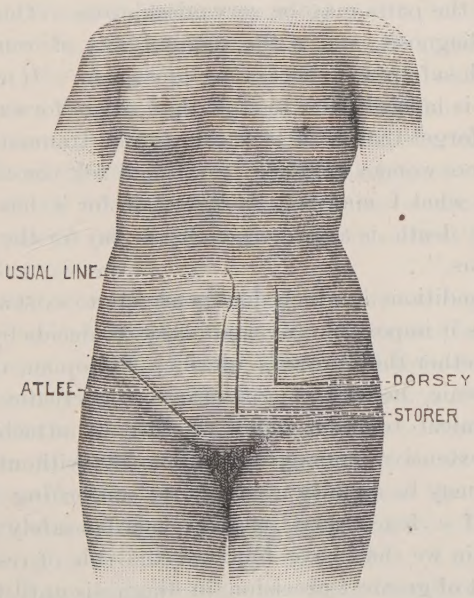
In the autumn of 1885 the signs of pregnancy disappeared and her weight increased from about 140 to 180 pounds. In May, 1886, she had typho-malarial fever, from the effects of which she has not fully recovered. During the first fortnight of this illness she lost thirty pounds in flesh, and her emaciation disclosed a hard but painless tumor about the size of the fist, and located in the right hypochondrium. She was for some time in the care of a German physician, who promised to discuss this tumor by absorption. He said: "I make you strong, the tumor he grow faster; I make you weak, the tumor he no grow!" When she had lost in all about eighty pounds in weight Dr. Van Voorhis was consulted. He found an abdominal enlargement as in a six months' pregnancy; she was exceedingly weak and prostrate, the feet and ankles were swollen, the bowels were bad and the digestion was very much impaired. She gained strength slowly, and finally determined, with all of a good, brave woman's pluck, to make the long journey hither for an operation.

The deliberate opening of the abdominal cavity for the purpose of making a precise and a final diagnosis in the case of a contained tumor was first practiced by Walne in 1842. For more than forty years, in pre-antiseptic days, it was unpopular, but now there is such a reaction in its favor that it bids fair to be abused unless the indications for its employment are carefully considered. This is what is called the abdominal section, the exploratory incision, or more properly an explorative or a diagnosticial laparotomy. It should not be made carelessly, without hesitation, or without the strictest antiseptic precautions. Nor should it be done until the patient, or her family, or both have been fully apprised of the object in view, and of the possibility that nothing more than an incision may be prudent or permissible. Let them under-

stand that it is a pre-operative expedient which is intended to finish an imperfect and an incomplete diagnosis; that it is not made for the sake of cutting, or from mere curiosity; and that its design is to expose the tumor to the direct touch and to sight in order that the question of its removal may be satisfactorily settled.

This form of laparotomy has a threefold value, therefore: (1) to complete the diagnosis by a digital and visual examination of the tumor, and of the pelvic and the abdominal organs that are involved; (2) to enable us to decide upon the expediency and the propriety of an operation, and (3) to say what particular operation shall be made.

1. *To complete the diagnosis by a digital and visual examination of the tumor and of the pelvic and abdominal organs that are involved.*—After having cleansed the abdominal integument with the same antiseptic solution that you intend to use internally, the incision is carefully made, the same as in



ovariotomy. And, no matter what the location or the size of the growth or of the obstruction, it should be made in the

mesian line, over and through the linea alba. This drawing on the blackboard (see the cut) shows the lines of incision that have been tried, or adopted by various gynecologists; but the usual one is the vertical and median incision chosen by Maurican for the Cæsarean section. The wound should not be more than from two to three inches in length, just sufficient to admit the passage of two, or at most of three fingers; and all hemorrhage should be stopped before the peritoneum is opened.

When you have the peritoneum upon the grooved director and are ready to cut it with the scissors, you may recall the maxim of my old friend, Dr. Palmer, to "look for the worst, hope for the best, and take what comes." For when it is properly made, the incision holds the key to all cases of doubt. It leads us to the seat of trouble in the most direct manner, and cannot be harmful if it is done with delicacy and not with a rough dispatch. But too much manipulation, or too long exposure of the parts may be very mischievous. Once satisfied with the diagnosis, and of the impossibility of removing the tumor with safety and success, we must *stop!* It may be, and it usually is much harder to stop than to go forward, but we must not forget that a little rashness and traumatism might cost the poor woman her life. So I shall ask you to verify by sight only what I may find in this case, for it has been well said that "death is a severe penalty to pay for the perfection of diagnosis."

The conditions in which doubts are apt to exist are various; not only is it impossible in certain cases to decide by any other means whether the tumor is uterine, Follopian, or ovarian, renal, splenic, hepatic, mesenteric, or pancreatic; what are its anatomical relations, and whether its attachments are slight or extensive, manageable or not; but without this expedient we may be equally in the dark concerning its malignancy. If a fenestrated opening can be safely made and closed again we shall have followed the rule of reserving the instrument of greatest precision in diagnosis until the close of the examination.

It completes the diagnosis, and literally opens the way for

relief in pelvic abscess, pelvic hæmatocele, puerperal peritonitis and cellulitis with sero-purulent accumulations, in all forms of salpingitis, and in case of cystic or sclerotic degeneration of the ovaries. It is essentially conservative, the same as the abdominal incision for gun-shot wounds of the intestines, or for the direct examination of the stomach, or of the gall-bladder. And not only will its careful employment with good surroundings result in the saving of human life in certain cases, which were supposed to be beyond relief before the daylight was let in upon them, but the specialist who makes these incisions with comparative frequency will thereby learn to recognize and to differentiate all sorts of abdominal tumors with a greater degree of aptness, precision and certainty. It ought to be added to the reasons given by Dr. Bantock in his "Plea for Early Ovariotomy."

You will occasionally be surprised to find that the exploratory incision pure and simple is absolutely curative. The best examples of this kind occur in encysted peritoneal dropsy, in chronic peritonitis, and in the dysmenorrhœa of highly hysterical subjects. In the former the good result is akin to that which follows a free incision of the tunica vaginalis testes for the radical cure of hydrocele; but in the latter the mental shock produced by the idea of having undergone a serious operation (where nothing was removed) has so changed the clinical expression of the case that the hysterical symptoms will have disappeared.

2. *To enable us to decide upon the expediency and the propriety of an operation.*—When the indications for exploratory laparotomy were less clearly established than now, it was a very common thing to speak of a case in which the incision had been made and nothing further done as an unfinished or an incomplete operation. Strictly speaking it is not an operation any more than is tapping with or without the aspirator, and in the great majority of cases it is much more satisfactory. Dr. Sims is reported to have said in 1872: "I never know exactly what I am going to find when I get into the abdominal cavity." And Tait says very expressively: "Sometimes I now begin an 'exploratory incision' and end it as an 'ovariotomy,'

while formerly I used to start an 'ovariotomy' only to end it as an 'exploratory incision.'" There is only one risk to a beginner in this, that he will have to learn when to stop at the mere exploration. To attempt the removal of a tumor and not be able to finish it, is the most fatal of all proceedings, and therefore the list of incomplete operations should always be a short one."* The operation is not an unfinished one unless you have really tried to remove a tumor and have failed to do so.

The tumor that I showed you at my clinic on Saturday last, a condensed multilocular cyst of the ovary, had a history which illustrates the value of this form of exploration, when properly made and followed up with the appropriate operation. The woman from whom it was taken was a patient of Dr. J. E. Morrison, of Urbana, Ill. The most careful examination by the usual means did not enable us fully to make out the diagnosis. The probabilities were largely in favor of its being an uterine fibroid. An explanation to this effect was made to the husband of the patient, and with the assistance of Dr. Morrison and Dr. O. M. Baird, of Champaign, I made the incision prepared to finish with an ovariotomy, or a hysterectomy, or whatever else should be required, *when we had completed the diagnosis.* The tumor was turned out, its pedicle secured, the wound closed and the patient left in good condition.†

There are cases in which an explorative laparotomy brings great relief with little comparative risk, even where it does not promise anything in the way of a radical cure. I had such a case a week ago in Kendallville, Ind. Its clinical history, which was kindly prepared for me by the attending physician, Dr. W. M. B. Olds, is as follows:

Case.—On April 27, 1886, I was called to see Mrs. ——, aged forty-two. She was married but had never borne children. She complained of gastric trouble; a dull dragging pain in epigastrium; yawning; coldness of the extremities, with a burning, gnawing, cramp-like pain in the stomach, extending upward through the chest and throat. She had great dysp-

**The Pathology and Treatment of Diseases of the Ovaries*, by LAWSON TAIT, F. R. C. S., etc., N. Y. Wm. Wood & Co., 1883. p. 254.

†This patient is now well again.

nœa, with laborious action of the heart, and a heaviness in the right hypochondrium, with headache and depression of spirits. There was a dragging sensation in the pelvis and pressure on the rectum while standing; extreme constipation; the skin and eyes were yellow; sour eructations; the tongue was coated yellow, pasty and dry, and the urine was dark brown and scanty; the menses had ceased; the family history reveals no hereditary taint. She has been suffering for several years with the foregoing symptoms. *Nux* and *Chelidonium* were prescribed with good effect which lasted for a few days only. Under *Coloc.* and *Apis. mel* the flatulence subsided, and the urine cleared up for about three weeks, when the symptoms returned. July 1 she was very much bloated; the abdomen and stomach were highly distended; she had extreme pain, palpitation, dyspnœa and a decided nervous prostration. Examination revealed the characteristic diagnostic symptoms of ascites, and I decided to perform paracentesis. On the 27th of July, 1886, I removed fifty-five pounds of fluid. She rallied readily and was about the house until August 25, when I took thirty-two pounds of fluid. This was repeated September 9, and each month following until November, when she was tapped every ten days until January, 1887, after which it became necessary to do it every seven days. After February she was tapped every four days. She suffered no inconvenience from these repeated tappings. She would keep her bed one day before the operation and then would be about her house the following morning. After the first tapping her general health seemed to improve. She was free from constipation, the appetite was good and she gained in weight. She was tapped forty-three times and about 700 pounds of serum were taken away.

In August, 1886, she first complained of ovarian pains and shortly after I discovered a tumor which gradually developed until it was thought best to consider the propriety of its removal by an operation.

Physical examination showed that the uterus was firmly anchored, and that quite a mass was lying at the left lateral cul-de-sac, involving the broad ligament and probably the ovary also. At the right of the uterus there was a similar growth but of smaller size. In the right side of the abdomen there was a movable tumor which felt like a cystic ovary floating in ascitic fluid. The exploratory incision was determined upon on the theory that both the right and the left-sided growths at the roof of the vagina might possibly be impacted, and therefore removable; that at least the floating tumor might be taken away, and that its removal and the in-

cision of the peritoneum might, for a time at least, have the effect to arrest the rapid ascitic effusion. With the assistance of Dr. Olds and Dr. N. G. Rieff, of Albion, Ind., the incision was made after full preparation for any final procedure that might be necessary. The lateral growths were found to be due to cancerous infiltration, and were therefore let alone; but the floating tremor proved to be a cysto-carcinoma of the right ovary. It was removed and weighed ten pounds. I showed it to you and explained its peculiarities on Wednesday last. That patient is now at the ninth day and is sailing along without any troublesome symptoms.*

3. *To decide what particular operation shall be made.*—In its recent progress abdominal surgery has developed a variety of resources which cannot be properly applied in making a radical operation until the indications for their employment are plainly presented. Whoever has opened the abdomen very often in the living subject knows that every incision made through its walls is explorative. But, when we have found the tumor, and determined its nature, its seat, its attachments, and the possibility as well as the propriety of its removal, it becomes a very serious question as to what form of surgical procedure is best suited to the case in hand. The fact that the intervening parietes are out of the way facilitates matters and enables us to do just what is most clearly indicated, and in the best manner, for the welfare of our patient.

The patient being properly anæsthetized and everything in readiness the incision was made through the linea alba. The hemorrhage being under control and the wound perfectly clean and aseptic, the peritoneum was opened. This disclosed a cancerous mesentery which was studded with hard, whitish deposits, and some of the veins of which were as large as one's little finger, full, turgid and ready to burst. Beneath this envelope, which was quite adherent over nearly the whole surface of the tumor, was an immovable mass of cancerous infiltration which involved the intestines and the neighboring viscera. To the right of the incision was a cyst of the size and form of a goose egg, which could be felt but for which no pedicle could be found. It was this which had been recognized as a small, knob-like protuberance by external palpation. The malignancy of the growth was manifest. The diagnosis being fully established, no attempt was made for its removal. The greatest care was taken not to wound any of the vessels; the peritoneum was closed with the continuous catgut suture, and the external wound united with silver wire.

*May 12—At the end of the fourth week she is "all over the house," and thus far there has been no return of the ascitic effusion.

April 21.—After the exploration the patient was put to bed and properly nursed. Reaction took place in due time and she got on without a single bad symptom, and only a slight nausea for about eight hours, or until 10 P. M. The mind was clear, there was no hæmorrhage or collapse, and she talked cheerfully about the case. She inquired about the operation and having settled in her own mind that the adhesions had prevented the removal of the tumor, she expressed herself as pleased that all doubts on that point had been settled. Nothing was said to her of its cancerous nature. At 10 P. M. she had a paroxysm of troublesome vomiting and retching, which repeated itself several times and gave her great pain and distress. She, however, rested from 2 to 6 A. M. The vomiting returned at 6 in the morning, and although it yielded somewhat, it became uncontrollable at 8 o'clock. At 10 she sank into a collapse and died from the rupture of a mesenteric vein half an hour later.

Two ovariotomies—Recovery.—*Case* 20006, was brought to the hospital by Dr. H. A. Ditmar of Manchester, Iowa. The patient is fifty-four years of age, married, and the mother of six living children, the youngest of which is fifteen. She has always flowed very freely at the month, but passed the climacteric seven years ago. Three years ago, and one year since also, she fell upon the ice and was badly bruised and lamed. Eighteen months ago she observed a slight enlargement of the abdomen. One year ago, while it was growing rapidly, she was taken very ill; after that illness it apparently ceased to grow until within the last two months, since which time she has grown very large. She has never been tapped, and has had no severe pain. Her general health has been good. The girth around the abdomen is 43 inches; from the pubis to the ensiform cartilage 19½ inches; below the umbilicus 10 inches, above the umbilicus, 9½ inches. There is no albuminuria or other sign of renal trouble.

An ovariotomy was made in the Woman's department of the Hospital April 24. The parietal adhesions were very firm and vascular, and extended over almost the whole of the right side of the abdomen. Nearly one-third of the great omentum was so adherent to the tumor, that it had to be ligated in two sections and cut away. The tumor was multilocular, the parent sac being filled with a pea-soup fluid. There were many condensed cysts with a variety of contained fluids. The mass weighed thirty-one pounds. A long drainage tube was placed in the right abdomen along the side of the parietal adhesions.

May 4.—The patient is doing finely. There was a free discharge from and around the tube during the first week; on the eighth day the tube was withdrawn. Most of the sutures had been removed. She eats and sleeps well and has not had a single untoward symptom.

May 11.—She sits up to her meals and enjoys them. There has been a slight discharge of pus through two of the stitch holes, but there are no other symptoms. She will sit up in her chair to-morrow. The highest temperature has been $101\frac{1}{5}^{\circ}$, which was on the evening of the thirteenth day.

Case 20007. Mrs. ——, æt thirty-eight, was sent to this clinic by Prof. Hall. She is married but has had no children. Ten years ago she had an abortion at the third month which was caused by a fall. A year later she was suddenly seized with an acute pain in the ovarian region. This pain recurred whenever she lifted anything, and upon slight overexertion of any kind. Five years ago she discovered a swelling in the left inguinal region. It grew rapidly and was always painful. She could not lie upon the opposite side, and had much pain in the back. The menses have been and are regular and normal. The bowels are extremely inactive. Of late she has lost strength and flesh quite rapidly, so that for two months past she could get about only with great difficulty. For six months she took medicine by the advice of a physician under the promise that it would surely remove the tumor by "absorption."

This ovariotomy was made April 27 in the hospital amphitheatre in the presence of the post-graduate and of the general medical class. Profs. Hall and Shears and other visitors were present. Prof. Bailey was first assistant, and Prof. Ludlam took pains as he proceeded with the operation to explain each step thereof, so that all might see and understand it thoroughly. There were no very serious complications. The tumor was multilocular with a very vascular pedicle. Its weight was twenty-five pounds.

When the operation was completed and the patient had been sent to her room to be properly cared for, Prof. Ludlam spoke in severe and earnest terms of the shameful fraud that had been practiced in promising by the use of any remedies whatever to remove such a compound cystic growth through the process of absorption.

May 13.—Thanks to the unremitting care of the house physician, Dr. Bain, and of her excellent nurse, the patient is almost well again, sitting up, and eating and sleeping like a healthy person.

Clinical Society Transactions.

DR. A. K. CRAWFORD, SECRETARY.

MAY MEETING, 1887.

This being the annual meeting of the Society the election of officers for the ensuing year had to be considered before proceeding with the regular business of hearing a Bureau report. To save time the president, Dr. C. H. Vilas, appointed a committee to draft a slate of nominees for the several offices of the Society. When this was done and the members had balloted upon it the following were declared elected for 1887:

President, DR. G. F. SHEARS.
First Vice-President, DR. C. E. LANING.
Second Vice-President, DR. J. D. CRAIG.
Third Vice-President, DR. E. PARKHURST.
Secretary, DR. A. K. CRAWFORD.
Treasurer, DR. W. M. DAVISON.
Phonographic Reporter, DR. J. B. S. KING.
Board of Censors, DRS. H. B. FELLOWS, T. S. HOYNE, W. H. BURT and W. S. GEE.
Executive Committee, DRS. G. A. HALL, E. M. P. LUDLAM, A. J. FRENCH and W. J. HAWKES.

REPORT OF THE BUREAU OF OPHTHALMOLOGY AND OTOLOGY.

DR. C. H. VILAS, CHAIRMAN.

The following cases have been selected from the crowded clinic at the Hahnemann Hospital as possessing a general interest. Since the senior surgeon has had the aid of an associate, much time has been devoted to the careful treatment of chronic cases. They believe the results are commensurate with the skill and labor given, as will be seen by the report herewith submitted:

Case 1.—PHLYCTENULAR OPHTHALMIA WITH SPASM OF THE LIDS.—A girl four years of age, of an American family, was

brought, on June 8th, to ascertain if the child was going to lose her sight, and what could be done.

There was excessive intolerance of light. The girl had not opened her eyes for over three weeks. The slightest attempt, even in moderate light, was instantaneously interrupted by spasmodic contraction of the lids. The child looked fleshy but pale: had a running from the nose, excoriation of the nostrils, swollen upper lip, enlarged lymphatic glands under the jaw, and perspired easily, especially about the head.

On an attempt at raising the lids, so as to expose the eyeball, a gush of tears was expelled. There was a small superficial ulcer on the right eye near the centre of the pupil, surrounded by an effusion of lymph, which covered almost the whole cornea. Numerous triangular, fan-like bundles of conjunctival vessels, with the base toward the palpebræ and the apex toward the cornea, extended from the retro-tarsal region to the corneo-scleral margin. The apex of the triangle of vessels presented one or more pustules, varying from a semi-transparent to a yellowish-white color. The smallest of these pustules was about the size of a millet-seed. The palpebral conjunctiva of both eyes was very vascular and considerably thickened and swollen. It was not of the bright red color, as is usually the case, but of a peculiar bluish tinge.

A four-grain solution of atropia sulphate was given, to be dropped in both eyes three times a day. Bandaging the right eye seemed not advisable on account of the profuse discharge of tears. The mother was instructed to keep the child in the dark as much as possible and to get her a green shade. Internally, *Calcarea carbonica* was given four times a day.

Under this treatment the ulcer began to improve. On the 17th it had almost healed. The intolerance of light and the photophobia were, however, just as intense as on the first day. The child burrowed her head in her mother's lap, and was very careful to turn her back always toward the light. The conjunctival congestion was no better. Not satisfied with the result of over a week's treatment, and believing that the spasm of the lids was due to scrofulous conjunctivitis exciting the sensitive nerve of the eye, causing a reflex action of the muscular nerve or portio-dura, *Argentum nitricum*

was thought of, from the fact that according to allopathic authorities, strong astringents and excessive use of them have often caused almost the same condition, or one very much similar to this. A three-grain solution was procured, the lids were carefully everted and the medicine applied over the conjunctiva. This was repeated every twenty-four hours. The atropia was used twice a day. On the 27th the mother stated that the child opened her eyes for the first time during a period of six weeks. The conjunctiva was less swollen and the peculiar bluish tint was changing to a bright red. At the end of another week's treatment the child had improved so much that she could keep the eyes open, with the aid of the shade, most of the time in a moderately darkened room. The lardaceous looking surface had almost cleared up. The pustules were but few in number and the vessels began to disappear. The general improvement of the little patient was quite marked.

The same treatment was continued, excepting that the astringent was applied only every forty-eight hours and the internal remedy twice a day, while the atropia was dropped into the eyes every other day.

July 15th the child looked quite cheerful and was able to keep the eyes open without the shade. The atropia was discontinued and a two-grain solution of the sulphate of zinc was prescribed to be dropped into the eyes every other day or every third day, according to the improvement. On August 3rd the little patient was seen for the last time. The conjunctiva of both eyes looked normal, the white of the eye-balls clear. The sight in the left eye seemed perfect, while only a slight nebula, at the seat of the ulcer, was noticeable on the other eye.

This disease is very often the first manifestation of a scrofulous constitution, hence it is almost always observed in young children. If neglected or mistreated it frequently becomes the cause of permanently impaired vision, or even of entire loss of sight. One peculiarity about the disease is that the patient seldom suffers with severe pain, even when a corneal ulcer exists. There is always a marked tendency to a relapse, which can only be prevented by administering such remedies as will act upon the characteristic diathesis in each patient.

Case 2.—Chronic catarrhal inflammation of the middle ear, with anchylosis of the stapes.—Mrs. B., a very tall and stout middle-aged woman, with more than an average amount of intelligence, gave the following history: "Many years ago my left ear began to trouble me. At first I noticed a slight buzzing in my ears from time to time, which kept increasing and soon became constant; only occasionally I would have a sharp, shooting pain. Four years ago the other ear began in the same way; a little later I observed that the hearing began to fail rapidly, and conversation became very tiresome on account of the close attention I had to pay, especially when several would speak in the same room. It is now over a year since I discovered that I am deaf in the left ear. Most of the time I have an aching pain in the ears, with a constant sensation of fullness. When I lie down I feel a crashing sound in the head, which is often so loud that it awakes me from a sound sleep."

The hearing was found to be so impaired that she could with difficulty understand when spoken to in a very loud voice, close up to her right ear. It was not possible to make her understand a word with her right ear closed. She felt quite nervous and had no hopes that anything could be done to restore the hearing, but came to get something to stop the pain, and the unpleasant noises in her ears. The aërial conduction of the tuning fork was but faint in the right ear and entirely lost in the left. The bone conduction, on the contrary, was clear and distinct. The membranæ tympani of both ears looked dull, opaque and sunken, with the mobility very much impaired. The general health of the patient was not very good. Her complexion was sallow, bowels constipated. Although she did not take cold very easily, yet there was most always a discharge from the nose. The hypertrophied condition of the mucous membrane in the throat also indicated a catarrhal process. The subjective and objective symptoms pointed clearly to middle ear disease, and the opinion was given that the main trouble was located along the ossicles, with most likely anchylosis of the stapes to the incus. The Eustachian catheter was introduced, and the middle ear

inflated with Politzer's air-bag. The Eustachian tube was quite permeable. *Bryonia* was prescribed to be taken internally. Inflation was carried out twice a week. October 19th, two weeks from the time when first seen, her bowels were regular, the pain in the head had almost disappeared, and she expressed herself that her head felt somewhat clearer. A week later the patient was entirely free from the pain in the head, but felt very much discouraged, because she thought the hearing was worse than when she first began treatment. A friend who accompanied her was, however, of the opinion that the hearing had slightly improved. The remedy was changed to *Pulsatilla*. November 3rd she stated that the hearing in her right ear had improved; she could now hear sounds which she had not heard for a long time. She kept on improving slowly and three weeks later she remarked that her general health was never better. The noises in the right ear began to lessen and intermit occasionally. The same treatment was kept up. When the very cold weather set in she received no local treatment for a month. When she came back the hearing was about the same and the buzzing seemed to be a trifle less. On the 3d of February we were all surprised to find her hearing so much improved. The patient stated that while her ears were inflated the last time she felt a peculiar cracking sound, much louder than usual. On her way home she noticed that her hearing was very much better, as she could hear those speak who passed her. From this time on, the right ear improved very rapidly.

On the 17th of March she was treated for the last time. The hearing in the right ear had so much improved that she could hear almost everything that was spoken in a moderate tone. The noises in the same ear had entirely stopped. The tick of the watch could be heard at four inches. The other ear had slightly improved. She could now hear about the same with that as she could with the right one when she first applied for treatment.

Case 3.—SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.—Bennie, three years and a half old, was brought to the clinic July 13th. His mother gave the following history: "When

Bennie was but two weeks old the left ear began to discharge. It was not looked upon as very serious, and nothing was done for it. The child increased in weight and appeared quite healthy. When one year old the other ear began to discharge, and the child showed symptoms of severe pain in the head. The appetite became very poor. When two years of age she had his ears treated. The discharge seemed to grow less but his general health did not seem to improve. After he had been treated for almost a month, he became very sick one day. The child began to vomit, and had several convulsions, and was very feverish. The mother thought that trying to interfere with the discharge from the ear brought on this trouble. The ear doctor was discharged and another one called in, who was of the same opinion as the mother. The child was treated for brain fever and was not expected to live. Since that time Bennie has been very peevish and cross. He does not seem to have hardly increased in weight; has pain in the head most of the time, high fever, and perspires very much. He vomits a sort of a greenish phlegm several times during the week and wants to lie down most of the time. The mother also stated that she lost a little girl over four years of age with the same trouble, and that her husband died of tuberculosis. After the profuse milky discharge had been syringed out from both ears, the drum-heads were found entirely destroyed. The middle ear looked very much inflamed, but no granulations were to be seen. The mother was advised to syringe out the ears at least four times a day, and to bring the child twice a week. The ears were syringed out each time and the parts dried very carefully with absorbent cotton twisted about a wire cotton-holder. This was followed by Boracic acid powder blown into the middle ear. *Calcarea carbonica* was prescribed internally.

July 22.—The discharge was somewhat less from both ears, had only one vomiting spell, appetite somewhat better. The same treatment was continued. July 29th there was no discharge from either ear; appetite had very much improved. The mother was told to syringe out the ears only once a day.

August 5th.—The boy felt better in every respect, had no vomiting spell; appetite was very good, had increased in weight, and began to play.

August 12th.—Bennie was seen for the last time. Although the boy was feeling quite well the mother was told to report, but we never heard from her.

Case 4.—SUPPURATION OF THE MIDDLE EAR WITH CARIES.—Mr. P., a robust young man, thirty years of age, had been suffering with a discharge from both ears for many years. As near as he could remember, about ten years ago he was taken with a severe pain in his left ear, which continued for several weeks, when the ear began to discharge, and the pain ceased gradually. The discharge was of a dark brown color, which changed to a yellowish one. Shortly after the other ear began to pain him, and also commenced to discharge. The secretion from this ear was of a yellowish color from the start.

He had received treatment at different times, and one time he was treated for over three months. There was some improvement, but not having means enough to continue treatment any longer, he was obliged to give it up, and in a short time the discharge became as profuse as ever.

Some years passed without treatment, and the ears gave him but little trouble.

The discharge then became very offensive, and treatment was again entered upon under the care of several specialists, but the result was so slow that the patient became disgusted and stopped. Shortly after the discharge became again very offensive, more so in the left than in the right ear, and the discharge from the right ear was from time to time mixed with blood.

After the ears had been cleansed, it was noticed that the membranæ tympani of both ears were entirely destroyed. The malleus was missing in the left, and there was a decided pulsation in the tympanic cavity. Two peculiar lardaceous looking spots arrested the attention of the examiner, and were at once explored with the probe. The surface felt soft to the touch. The probe could be pushed through the cheesy mass several lines before the bone

was hard enough to resist the pressure. One of these spots, almost one-half the size of a dime, was located on the upper wall of the tympanic cavity, and the other, somewhat smaller, on the inner and anterior walls. An ordinary ticking watch could still be heard at four inches distance. In the right ear, a polypus, about the size of a small hazel-nut, was located deep in on the anterior wall. The watch was heard only when placed in contact with the ear. It was explained to the patient that little could be accomplished unless he could be treated every day, to which he consented.

A ten per cent. solution of peroxide of hydrogen was prescribed to be dropped in both ears twice a day, and he was told to syringe them once a day. Prescribed *Silica* internally.

The polypus was removed and the pedicle cauterized; applied Boracic acid powder after the ears had been dried. It was soon observed that no amount of syringing and twisting with the probe and cotton would remove the cheesy substance from the carious spots. A curette, very much like the common ear spoon, but deeper and with a very sharp rim and slightly curved, was ordered to be made. With this instrument the operator was able to scoop out the unhealthy mass of bony tissue, until healthy surface was reached. Carbolized cosmoline was then applied and borax powder blown over it. This was repeated every day. Both of the ears made very rapid progress toward recovery. After three weeks' treatment there was no more discharge from the right ear, and no more unpleasant odor from the left. The curette was made use of only every other day. At the end of six weeks, the parts could be cleansed with the probe and cotton. The boracic acid powder and the peroxide of hydrogen were discontinued. The left ear was still syringed out every other day and carbolized cosmoline applied. It is now nine weeks since the patient began treatment, and there has been a continuous improvement. At the present time the smaller spot is entirely healed, while the larger is only about the size of a small split pea. The hearing in the left ear has somewhat improved. The watch can be heard at about six inches in the right.

Discussion on hysteria in men.—Dr. H. B. Fellows.—This is a subject in which I had, of necessity, to be interested, because of its relation to a disorder in my special branch of study, viz.: Neurasthenia; so that I have watched closely the current literature containing fresh articles on hysteria among men. The dividing line between these two affections is often very dim and shadowy. There are instances where, as in hystero-epilepsy, there can be no mistake about the presence of the hysterical element; but in other nervous disorders it is impossible to say definitely that hysteria co-exists with the disease. I recall the case of a lawyer in this city who could do a fair amount of mental work at his home, and with the best intentions imaginable he would start in the morning in his carriage to drive to his office, but when almost there he would order his driver to turn and go home. He had the feeling that he could not possibly enter his office. He knew it was foolish, whimsical, but he could not help it. The facts were, simply, that the man had been in poor health for some time and was debilitated, and hysteria developed on top of it. His will was weakened, and the emotional part of his nature gained the upper hand.

It is quite common to note at the bedside of sick men, how they are cheered up by the talk of their physician, just as women are; therefore there must be in each an equal amount of unreality present.

Both of these alied affections—hysteria and neurasthenia—occur in anæmic individuals, in consequence of over-work, or of a shock of some kind. Both are attended with convulsive action, or we may witness a temporary insanity in them. I remember a case of this sort in which the patient, from a neurasthenic state went suddenly into acute dementia, which could be likened only to the bursting of an emotional storm.

It has been stated by one writer that neurasthenic patients recover more slowly than the hysterical, but we are all aware how persistent some of our hysterical patients are to their foibles, so that this is hardly a reliable differentiating feature between them. One feature common to most neurasthenic cases is their origin from care and worry.

Yet they are both functional diseases; they have many points in common, and it is hard to draw a distinct line between them. How often is it noted that men coming under our professional care try to make out that their case is much worse than it really is. In fact they often persuade themselves, beyond all reason, that they are the subjects of some direful organic disease. This very tendency to exaggerate their symptoms shows the hysterical element in the case. Yet so far as its relation to neurasthenia is concerned there can not be set down any sharp line of demarcation, whether found existing in man or woman.

Dr. C. H. Vilas—Does neurasthenia lead to epilepsy, or could a patient generate an attack of epilepsy out of neurasthenia, or does neurasthenia lead up to other and more serious nervous disorders?

Dr. Fellows—Only in the same way that hysteria does, and it is a remarkable fact that organic disease is not uncommon among patients who during life exhibited signs of hysteria only. In the "Archives de Tocologie" there have been published many post mortems of hysterical patients in whom disease of the nerve centres was found. Little spots of softening or sclerosis in the spine or brain. The same is discovered in the spine of patients who had suffered from railway shock, the starting point of the disease in them being in all likelihood small spinal hemorrhages. But because the patient is found to have organic disease that is no reason why he may not have hysteria too, and *vice versa*.

Dr. R. Ludlam—And this takes us back to the saying of Robertan that there is a true hysterical diathesis which may be inherited or acquired.

Dr. Fellows—It is no less true that there is as well a marked neurasthenic diathesis inherited or acquired.

Dr. R. Ludlam said he had been very much interested in the consideration of this subject. The word hysteria is a misnomer, for it carries the idea that the womb has some

necessary connection with the development of its symptoms. When it was first used the womb was thought to be a migratory animal or organ, that could come up into the throat and travel about from one point to another during the nervous attack. But now we know that the ovaries are much more frequently the seat of hysterical mischief than the womb itself; and we are learning that there are cases, in men for example, and in women too, in which the ovaries are not involved.

The point raised by Dr. Fellows concerning the clinical parallel between hysteria and neurasthenia is well taken and thoroughly practical. Much as these two kindred affections might differ in some respects, they certainly merge and mingle in others. But it is characteristic of hysteria to counterfeit and to complicate other diseases. It is like glycerine that will mix with almost anything without losing its own peculiar properties, but once the mixture is made it is next to impossible to separate it again. Neurasthenia and hysteria, like hypochondria and hysteria, are clinical compounds that are very difficult of analysis and classification. We must leave it for the specialists in nervous diseases, like our friend Dr. Fellows, to define their differences and to tell us how to cure them.

That the milder forms of hysteria exist among men as well as with women, I have no doubt. That this type of the affection, whether it simulates paralysis, or rheumatism, or pneumonia, or any other serious disease, may often be cured or routed by a strong mental impression without any medicine whatever, is equally certain. This fact, which is as old as the Bible, is illustrated by the doings of the faith-cure followers and by the operations of the "Christian scientists," falsely so-called, for while these hot-house doctors may be Christian (let us hope that they are), their theory has no foundation in science.

I am certain that the members of this society must have treated not a few cases of hysteria in men, possibly without knowing it. In one of my families quite recently the wife had a baby and the husband had—hysteria, but both of them, including the baby, are now well again.

Dr. Fellows—That might be called a "division of labor!"

Dr. Ludlam—You will please take notice that Dr. Fellows fathers that joke.

Dr. H. P. Skiles—I am of the opinion that almost every case of hysteria has a lesion somewhere. The terms hysteria and neurasthenia seem to me to mean nothing. They do not elucidate a case, but rather blur it.

Dr. Gee—Will Dr. Fellows tell us what remedies he has used in these cases with the best effect?

Dr. Fellows—All of them, from A to Z, and all the mental influences that could be brought to bear as well. One man I sent off to New York for the change of scene and surroundings. In another case I thought ridicule would answer best, and have gone and laughed at him.

Dr. Ludlam—He could not stand that, I'm sure.

Dr. Gee—Did he ever call you again?

Dr Fellows—Yes, he even survived my derision and had me attend him afterward.

Dr. Craig—A good many years ago I had put in my care a schoolma'am who had not been out of bed for four years. I could not get any symptoms to base a prescription on, and resorted to the movement cure. This was persisted in, and after a time I got her on her feet again.

Dr. Ludlam—I am satisfied that hysteria oftentimes may be cured by some simple operation, such as for hemorrhoids, for laceration of the cervix, or the procedure for restoring a displaced uterus, even when the uterus is not big enough to hurt the patient if it got into her throat. As another expedient, applicable to men as well, you might get an oculist to bore their ears.

Dr. Vilas—An *aurist* if you please.

Dr. Fellows—As an example of the obstinacy of hysteria in men, I will cite the case of a man who always complained of a headache from reading even a newspaper paragraph. I prescribed for him, but he gained no help from it. The head-

ache was of that order concentrated in a spot he could cover with the end of his finger, a regular "globus hystericus," and this lasted months without intermission. In another instance I knew of, the patient went to a New York physician who declared he cut out of the spine a callous made by the pressure of the collar-button, and thereby cured the individual of permanent paralysis. He did not altogether appreciate my telling him the New York doctor had cured a case of hysteria.

Dr. W. M. Davison—There lived a certain woman in my neighborhood once who was in the habit of assuming, on occasion, very striking attitudes, and holding her breath much to the distress of her household. Out of one of these diversions she was brought one day by dousing her with a bucket of cold water. Another day the lady's sister came to me in great haste and fear, saying her sister was dying. When I entered the room I found the extremities somewhat cool, and respiration apparently suspended. I also noticed that the eyes of the patient, under the partially closed lids, followed all my movements about the room. I had in my pocket a two-ounce vial of the tincture of capsicum. I called for a tablespoon and poured it full without diluting it a particle. I own it was a rather severe remedy, but I did not think of that just then. The family thought her dying or dead, and I wished to restore her. The teeth being separated, that tablespoon of liquid fire was poured down—Well! I did have time to grab my hat, but not to put it on. The witches were not closer after Tam O'Shanter than that patient was after me, down the yard to the front gate. I have heard of no more dying fits to this day.

Shot through the brain with a ball from a bull dog revolver, caliber 38.—recovery.—Reported by N. D. Smith, M. D., Paris, Ill.—F. McCoy, driver of race horses, aged thirty-seven years, weight 150 lbs., height 5 feet 7 inches. March 4, 1887, at 8 A. M., McCoy entered the office of his stable, and while folding a blanket preparatory to exercising a horse, Albert Vick, another driver with whom McCoy had some controversy a few days previous, entered the office and

shot McCoy, the ball passing through the back of the neck, making a flesh wound three inches in length. McCoy at once sprang to get hold of Vick's arm, which he did, but having on heavy gloves and overcoat he could not hold the arm and Vick got in his second shot at very close range, as the powder in McCoy's face argues; however, the hat rim through which the ball passed was a protection to the forehead and face from powder. Ball entered above left eye, one and one-quarter inches to the left of frontal suture at superciliary ridge. There was very little probing done, when compared with the search for the ball which felled the great James A. Garfield, enough however to warrant an attempt to operate in the belief that the probe touched lead, which proved to be true, but the scale of lead from the ball was small, one-sixteenth of an inch in width and three-quarters of an inch in length. As soon as the reaction from the shock took place, chloroform was administered to complete anaesthesia by Dr. George H. Hunt, assisted by Drs. J. N. Downs, R. S. Lycan and W. W. Wilson, homœopaths. I proceeded by making T shaped incision; deflecting the flaps, the pieces of bone and lead, before mentioned, were removed; the pieces of bone, when placed in apposition, make a plate of bone as large as a silver half-dollar. The loose brain substance which was removed and that which had already been discharged was estimated at fully one-half ounce. As near as we could trace the track of the ball with the finger it went directly through the cerebrum, lodging in the inner occipital protuberance. Strange, though true, McCoy's senses are perfect, all the functions normal, and have been all the time except for a few days he would, when blindfolded, mistake a touch of the ring finger for the little finger in either hand and the same was true of the toes; was at no time unconscious, except when anaesthetized; had no pain after the pieces of bone were removed from the brain; temperature ranged from 99° to 101° and the pulse from 50 to 90 for the first ten days; ate and slept well all the time and could have walked from his room to the dining-room or elsewhere about the house each day, but was kept in bed for twelve days. About the twentieth day he walked down town one-

half mile and has been out each day since. The incisions were left to heal as an open wound, insuring perfect drainage; wound was dressed daily with carbolized oil, marine lint, and covered with oiled silk and roller bandage. The discharge was always healthy but not very copious and ceased about the fifth week. Wound is now entirely healed, this being the eighth week. Wound in neck healed by first intention. Principal remedies used were *Aconite*, *Arnica*, *Arsen.* and *Bryonia*.

A NEW SURGICAL WORK—By G. F. SHEARS, M. D.*—Although so many works on surgery have appeared within the last two years the present volume has a well defined plan of its own. As its name suggests it is not a comprehensive treatise but a textbook in which may be found the generally accepted principles and the best procedures of the present day. The author is an earnest believer in the antiseptic treatment of wounds and in the opening chapters devoted to surgical dressings, bandaging and operations, the details of this treatment are clearly set forth. His directions for the preparations of material, catgut, iron, sublimated solutions, iodiform sponges, drains, etc., as well as his directions for the preparation of the patient, operating room and table are minute and practical as well as delightfully positive. In this latter respect it resembles the little book "How We Treat Wounds Today" which was so greedily received by the general physicians. The same definiteness of direction is found in the chapters on amputations, excisions, abdominal section and in fact in all the chapters where operative treatment is suggested. Inasmuch as the great advances of the present day have been made as a result of greater attention to the details of operation and treatment, this minuteness and positiveness are especially to be appreciated, and form one of the most valuable features of the work. Many recent procedures, as intubation of the larynx, local uses of cocaine, and certain operations upon the bones which are not found in less recent works, and yet are recognized surgical devices, are here given their true position. The illustrations are excellent, and we are glad to say in many

*A Textbook on Surgery: General Operative and Mechanical, by John A. Wyeth, M. D., Professor of Surgery in New York Polyclinic, etc. D. Appleton & Co., 1887.

instances new. The articles on amputations, excisions, ligature of arteries and hernia deserve especial mention in this regard. Besides the usual cuts these articles have been made much more valuable by the introduction of colored cuts showing the relative position of muscles, arteries, veins and nerves, in different portions of the body, when operations are demanded. Besides being a book which is almost a necessity to the physician who is called upon to treat surgical cases, its handsome paper and large plain type make its reading a comfort, and we hope may be useful in calling the attention of other publishers to the desirability of following so good an example.

THE SERPENT POISONS IN CHRONIC VALVULAR AFFECTIONS.—By A. K. CRAWFORD, M. D.—The therapeutic value of the serpent venoms in chronic diseased conditions can not be determined by the published pathogeneses of their virulence when introduced into the animal organism. For in these instances the action noticed is that of their immediate influence, and when death does not take place the later effects are too evanescent to afford positive evidence of deep tissue changes. Moreover it would be altogether too precarious an undertaking for a human being to subject himself, or allow himself to be subjected to the test of their continued employment in order to satisfy the inquiring mind of the specific therapeutist as to their ability to produce definite organic lesions. Therefore we are left to engage in experimental research upon the sick and afflicted if we would extend the therapeutic use of these agents beyond the point of their well known action upon the blood and nerve centres. To this end I wish to show what results have accrued in actual practice by the medicinal use of certain of these serpent venoms in a few cases of valvular affections of the heart.

I make no claim to be the first or only physician who has used them in such cases. On the contrary I am perfectly well aware of the fact that a select few of the fraternity have used, or suggested the use of them in cardiac disease. But it will be found, for the most part, that the serpent poisons are recommended for peri-cardial and myo-cardial inflamma-

tions, especially when the result of septic or pyæmic conditions, while their employment in endo-cardial inflammations, excepting theoretically for the ulcerative form, is only barely hinted at or omitted entirely. Their effect upon the *results* of endo-cardial inflammation, such as the thickening and retraction of the valve segments, is still less vouched for, therefore I have chosen to give here cases of this character only.

The snakes whose venoms are in more or less repute as medicinal substances are first—that somewhat mythical three-headed monster of South America, one of the family of *Lachesis*; second—the cobra de capello, the most virulent of the ophidians of the East Indies; third—the rattlesnake of our own latitude; fourth—the coral snake of Brazil; and fifth—the viper of Italy or Germany, or adder of England. Of these the first three, the *Lachesis*, the *Naja* and the *Crotalus*, are the ones with which we are most familiar. It is seldom that *Elaps* is mentioned as a remedy, but the *Vipera* is frequently employed by Dr. Jousset. As its habitat is Europe, to accord with the saying about nature supplying an antidote close by every poison, our preference should be for the *Crotalus*, as his is for the *Vipera*.

Case 1.—Annie H. æt. eleven years; first prescribed for in December, 1885. The cardiac lesion was a well marked one of mitral incompetence. The swelling and distortion of her joints showed whence the endo-cardial mischief had arisen. She was a chronic rheumatic arthritic subject. The heart was hypertrophied and she complained of violent palpitation, especially at night. The facial expression was puffy and bluish in tint. The *Crotalus* was given, but it had to be supplemented occasionally with *Moschus* to control the excitability of the heart's action. This treatment was continued for a few months, when she ceased coming, because of the entire relief of the cardiac and concomitant symptoms. This cessation of treatment should not have been, for although the *symptoms* had vanished, the *signs* had not. The murmur was not entirely obliterated, but very much lessened, as was the hypertrophy of the organ. In consequence of another bad rheumatic attack this past winter, and with it an aggravation of the heart

trouble, she returned for further medical care, after an absence of more than a year. She is again rapidly improving.

Case 2.—A young woman, twenty-two years of age, the subject of advanced Graves' disease. Great protrusion of the orbs, inflammation of the same, and ptosis; hypertrophy with dilatation, and a very loud mitral systolic blowing; the *bruit le diable*, and a slightly enlarged neck are some of the conditions found present. I have not cured this case, and do not know that I ever shall. But under *Naja* more improvement has been noted than has been the case under any other remedy. *Moschus* and *Spigelia* have seemed to afford the patient some relief at times from the violent palpitations and the intense left-sided darting pains.

But other remedies, of which quite a number have been tried, and tried faithfully, did not even hold the disease stationary, although highly thought of as combatants of this affection usually. The *Naja* was chosen because of the prominence of the cardiac derangement over and above all others in the case. The heart acted very boisterous and rapid, the apex stroke was seen, and felt, and heard to impinge upon the seventh interspace, yet the radial pulse was extremely filiform. These conditions underwent marked amelioration while the patient was kept on the serpent venom for several consecutive weeks. That was all. The disease has been in progress ever since puberty.

Case 3.—Maggie L, æt. fourteen—another case of mitral incompetence growing out of an attack of rheumatic endocarditis. In July, 1886, when first examined, about five months after the attack of acute articular rheumatism, the area of the apex impulse was found to extend from the fourth to the seventh ribs. The point of its maximum intensity was directly below the left nipple in the sixth interspace. Pulsation was also noticed in the second left interspace. The mitral systolic murmur was diffused over the cardiac area, and transmitted downward and leftward. Its quality was tense, almost whistling. The percussion dulness was co-extensive with the other signs of hypertrophy. At times there would be

spells of violent throbbing causing much distress to the patient. Such remedies as *Rhus*, *Bryonia*, *Caulophyllum*, *Calcarea* had been tried, but she was no better. *Naja* was administered, and because of its beneficial action it was persisted in until January last, when *Crotalus* took its place. The change was made on account of the cropping up of certain hæmatic symptoms. There were sudden engorgements of the vessels of the face and head noted, accompanied by dizziness, and, at times, fainting, as well as nose-bleed. These vascular disturbances were controlled nicely by the *Crotalus* and the valvular lesion improved apace.

Now the heart's action is rhythmical, and normal in frequency of beats. The apex has retracted and has no longer its former pounding stroke, and no mitral murmur is audible. Of course the girl feels better in every respect.

Case 4.—Mr. S., æt. thirty-seven. At different times for ten years past this patient has experienced muscular pains of a rheumatic character in the shoulders, or in the loins. A year ago this Spring he had an attack of sharp pain in the left chest, which repeated itself just a few days before he consulted me in September last. He then complained of palpitation of the heart if he took exercise, or if he was subjected to any excitement, he said he felt very nervous.

Physical examination brought to light the existence of a systolic basic murmur, heard along the sternal interspaces up to the aortic notch, and transmission of the same into the carotids. The heart was also slightly enlarged and its action shook his frame. The lesion was evidently stenosis of the aortic orifice. *Naja* was given him with instructions to take four doses daily, and a vial of *Spigelia* was confided to his care to be taken only if those sharp, left-sided pains troubled him. In four weeks time there was no evidence remaining of a valvular defect. The murmur was gone, the hypertrophy was diminishing, and the valve segments were apparently restored to their normal function.

These cases go to show the value of the serpent venoms in chronic valvular disease under certain well defined conditions,

such as their comparatively recent development, originating in rheumatic endocarditis or arteritis, after all inflammatory symptoms have subsided, and attended with tumultuous cardiac action, no regard being paid to which orifice is involved.

It is not to be inferred from this that I consider this class of remedies useful only under the circumstances stated. In the more or less definite outline of what sort of cases, and at what time the administration of these therapeutic agents will be found beneficial, the desire is simply to add that much to what is already recognized as their field of action. It will be seen, too, that all of my cases were not cured. Had they been, I would have been afraid to publish them. It is as much through the failures as the successes that anything like definiteness in the selection of conditions has been arrived at.

The choice of one or other of these poisons in preference to its neighbor, is somewhat on the broad gauge plan, also. We know from *Lachesis* what a multitude of symptoms, circulatory and nervous, properly belong to serpent poisoning; and we know full better the character and vehemence of the symptoms of poisoning from the bites of the cobra and the rattlesnake. These latter, in their toxic effects upon the organism, while they have much in common, seem to diverge in different directions from the standard of *Lachesis*. The *Naja* partakes altogether more of the neurotic in its pathogenesis; while the *Crotalus* shows a great preponderance of hæmatic changes. The vagi and sympathetic are much more perverted in their action under *Naja* than under *Lachesis*, and the vasomotor disturbances and flashes of heat in *Lachesis* are transformed, when the system is under the influence of *Crotalus*, to pressive and venous congestions, hemorrhages and purpura.

As to the question of dose, how much or how little of these venomous matters it is advisable or permissible to take in order to cure our cases "most safely, speedily and pleasantly," I like well the arguments and conclusions of Dr. John W. Hayward in his excellent monograph upon *Crotalus*, than whom no one has a better right to speak authoritatively, because of his practical knowledge and familiarity with these reptiles. He says: "Unlike the mineral and metallic medi-

cines, pure crotalus venom is a complex organic compound composed, in its natural state, of several other organic compounds, such as albumen, coloring matter, fatty matter, salts, crotaline, etc., therefore it cannot be infinitely divisible. * * Ultimately it must consist of organic particles, division or breaking up of which would destroy its identity. * * * The least material dose should be sought for in attenuations short of that in which the number of particles of the venom are either at immense distances from each other in the menstruum, or are absolutely broken up or destroyed by the attenuating process. * * There is a degree of attenuation beyond which it is not wise to carry crotalus venom. * * After having arrived at the ultimate particles of the venom, further attenuation would only separate them farther and farther from each other in the menstruum, perhaps to the extent of one particle of venom to a thousand or a million particles of the menstruum, thus making it a thousand or a million chances to one against any particular dose containing any crotalus at all. * * So theory, science, philosophy and experience must be consulted in determining the least material dose.''

His conclusions are that for acute diseases the third to the sixth attenuations are preferable. In rapidly fatal diseases he believes the first attenuation will serve best, and in case the stomach refuses to retain it he advises its hypodermic administration. For chronic diseases he is of the belief that the tincture may be used with perfect safety, two or three drops twice daily, and with good success.

This is all very well for a physician who prefers snakes to canary birds as household pets, but for those of us who must depend upon the pharmacies for our supply of the venoms, and they tell us they possess nothing but mild attenuations, we just take what we can get and try to feel thankful. In the cases narrated *Crotalus* 4 and *Naja* 8 or 9, both in the centesimal, were the dilutions used.

Miscellaneous Items.

The medical guns are being loaded for *report* to the various medical societies.——For lack of being practical Dr. S. T's paper on "Hysteria in Men" is returned to him. Send it to some of the medical newspapers.——Dr. W. P. MacCracken has opened an office at Forty-third Street and Lake Avenue, and Dr. W. A. Barker at 1740 Diversey Avenue.——Prof. Laning has changed his residence to 2972 Calumet Avenue: Prof. Hoyne to 1833 Indiana Avenue; Dr. J. P. Cobb to 3638 Indiana Avenue; Dr. B. S. Arnulphy to 506 North State Street, and Prof. King his office to 240 Wabash Avenue.——Prof. Hoyne's report is next in order at the Clinical Society.——The newest operation in this latitude is for the removal of rectal pockets from the urethra.——The Seventeenth Annual Report of the Massachusetts Homœopathic Hospital is a model of neatness and a marvel by way of encouragement to workers in this line everywhere.——Other publications received are "Persistent Pain after Abdominal Section," by Dr. James B. Hunter; "Some Thoughts on a New Remedial Source," by Dr. Charles Francis Ring; "Caries of the Sternum, a Notable Surgical Case," by Dr. G. M. Dixon, of Sacramento, Cal.; "Two Rare Cases of Abdominal Injury," by Dr. J. Stuckey, and "*Etude sur les Anomalies de la Dent de Sagesse Inferieure*," by Dr. B. S. Arnulphy.——Dr. William Tod Helmuth, Jr., who graduated in the New York Homœopathic Medical College April 14, sailed for Europe two days later expecting to join Dr. R. Ludlam, Jr., in Paris.——As will be seen elsewhere, Prof. Shears has been elected president of the Clinical Society for the current year.——Our readers are earnestly requested not to forget or fail to attend the meeting of the American Institute of Homœopathy in Saratoga next month.